

News release

# Ubiquitous AI Software Package Cuts IoT Device Development/Market Time by 50%, Reduces OSS Security Concerns

All-in-One "Ubiquitous RTOS IoT Enabler" for Embedded Applications Available from June 9, 2022—

Ubiquitous AI Corporation (Head Office: Shinjuku-ku, Tokyo; President: Satoshi Hasegawa; Ubiquitous AI) will begin providing a new product that incorporates a real-time operating system for configuring embedded systems, network stacks, applications, and other middleware into one operation-verified package on Thursday, June 9, 2022.



This new product, the "Ubiquitous RTOS IoT Enabler", is an all-in-one package designed to boost the development efficiency of a broad range of embedded products, from the latest Internet of Things (IoT) devices to emergency medical service equipment\*, smart appliances, medical and healthcare devices, as well as human-machine interface, and factory automation systems. Its use can potentially shorten development/market times by as much as 50%.

Based on the Ubiquitous AI TOPPERS-Pro Series of real-time OSes (conforming to µITRON 4.0 specifications) and the Ubiquitous Network Framework, which is a network stack that runs efficiently on resource-conserving microcontrollers, RTOS IoT Enabler can be flexibly combined with middleware suited to widely diverse applications.

The creation of RTOS IoT Enabler is in response to recent developments in higher-performance, more sophisticated embedded devices, which have necessitated the investigation, development, and procurement of a wide gamut of software, from the OS to network stacks, middleware, and applications. Moreover, ensuring the quality of the software to

be adopted and dealing with security issues involve enormous amounts of time and labor. These issues, which influence the decision as to whether or not to use open-source software (OSS) requiring specialized knowledge, impose substantial burdens on the developers of embedded systems.

In general, in an IoT device design process, there occur contract-related tasks for software selection and procurement, and development processes include many activities, from RTOS porting, network stack porting, and file system and middleware porting to application development. As a result, development periods often last a half a year or longer. For a user of the RTOS IoT Enabler, not only are contractual matters pertaining to procurement of multiple software products simplified, but there is also freedom from such issues as security concerns surrounding adoption of an OSS and worries about whether appropriate updates will be performed to improve software quality and to accommodate long-term utilization. And, because the RTOS IoT Enabler is a software package with verified operability, the period required for operation verification can be shortened, so that it is now possible to develop an IoT device in under three months.

Further, because it is generally assumed that an OSS is used without warranty protection, in the event of problems or unreliability, the user himself must deal with any issues that arise. On the other hand, the RTOS IoT Enabler is commercial software for which Ubiquitous AI, as the software supplier, provides support to deal with problems or unreliable behavior, thus alleviating the burden on the user.

In the past, product developers have been forced to develop derivative code based on existing resources owing to constraints on development time and man-hours. By using the RTOS IoT Enabler, however, they are able to migrate to designs based on the most advanced microcontrollers and processors that are optimal for their system requirements.

Thanks to improved efficiency of product development, engineers are able to concentrate on development of applications for their company, contributing to market launch of superior products.

In addition to the RTOS IoT Enabler, which can be applied to development of a wide range of IoT devices, the company will simultaneously release Ubiquitous RTOS IoT Enabler for EMS\*, integrating the ECHONET Lite standard used in many EMS devices such as smart meters and smart appliances, as the first RTOS IoT Enabler package intended for specific applications.

Hereafter, Ubiquitous AI will continue development of RTOS IoT Enabler packages enabling the prompt and uncomplicated utilization of reliable, high-performance software to support streamlining of product development and enhanced market competitiveness for our customers, and will add package variations tailored to specific application areas.

\* EMS: Energy Management System

#### Summary of the RTOS IoT Enabler

Name:	Ubiquitous RTOS IoT Enabler
Beginning of sales:	Thursday, June 9, 2022
Price:	From ¥2 million for basic functions (price varies depending on specifications; please
inquire for details)	
Product description:	https://www.ubiquitous-ai.com/products/rtos-iot-enabler/

#### Main Features

· Comprehensive software package to streamline and simplify embedded system design

Porting and development tasks for the OS, network, security, other components are rendered unnecessary; development efficiency is boosted, time to product launch is shortened

TOPPERS-Pro Commercial Realtime OS Already Integrated

Intelligent processing of complex timing-critical control. Compatible with the latest multicore CPU architectures

Packages Designed for Specific Application Areas

Development man-hours are further reduced through the use of packages optimized for specific applications, such as ECHONET Lite for EMS and audio controllers for smart speakers

For further information on the newly released Ubiquitous RTOS IoT Enabler for EMS, please visit the following web page. URL: <u>https://www.ubiquitous-ai.com/products/rtos-iot-enabler/for-ems.html</u>

For estimates and inquiries: sales@ubiquitous-ai.com

## Comment by Satoshi Hasegawa, President, Ubiquitous AI Corporation

"The embedded systems of recent years have become increasingly complex, continuously increasing the burden on the development resources of customers. At the same time, a globalized market structure demands earlier timing for product launches.

The newly announced RTOS IoT Enabler will resolve these problems by providing, in an operation-verified package, basic software and middleware for embedded systems that Ubiquitous AI has developed and marketed for many years as commercial software, winning the approval of customers. I am confident that the RTOS IoT Enabler can be of great use to customers engaged in product development where safe and secure use are emphasized in addition to performance."

The RTOS IoT Enabler will be introduced at the following events.

## **TOPPERS Conference 2022**

Date:	Friday, June 10, 2022
Venue:	Ota City Industrial Plaza (also online)
Official website:	https://www.toppers.jp/conference.html
Details of talk:	TOPPERS-Pro and RTOS IoT Enabler will be introduced in a segment describing examples
(16:10-16:50)	

## Infineon MCU Partner & Solution Day

Date:	Thursday, July 7, 2022
Venue:	Osaki Bright Core Hall (also online)
Official website:	https://infineon.oatnd.com/mcu2022/
Details of talk:	Description of software to implement intelligent IoT devices on PSoCTM 64 MCUs

#### About Ubiquitous Corporation (Tokyo: 3858)

Ubiquitous AI is a company that provides technologies and services required by manufacturing industry customers. Drawing on its results over many years in the embedded software industry, the company has been successful in the sale of its own proprietary products as well as software products from foreign sources and of related services. While making use of the superior leading-edge technologies and a broad and solid customer base that are its strengths, the company is building a business platform in cooperation with venture firms, startups, and academic entities, and by continuing to deploy throughout the world technologies and services that are needed by its manufacturing industry clients, Ubiquitous AI will contribute to further growth of its customers, its business partners, and society.

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## Note to investors

This news release is intended to provide information on the qualitative progress of Ubiquitous AI operations; its purpose is not to solicit investment. For information on business results, progress of business indicators, and forecasts relating to Ubiquitous AI, please refer to summaries of recent financial statements or other exchange disclosure information.

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